

## A STUDY ON THE WORKING CONDITIONS AND LIVING CONDITIONS OF URBAN CONSTRUCTION WORKERS IN TIRUCHIRAPPALLI TOWN

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### **ABSTRACT**

*Construction workers form the chunk of the unorganized labor force in our Country and in our State as well. More than a lakh is engaged in the construction industry in Tamil Nadu. A considerable number of such construction workers are women and children. The anguish of these workers is certainly a matter of concern. All most all the construction industry is in need of a vast labor force comprising of uneducated villagers from adjoining districts and even remote states. The laborers and their families working in the site are not provided with space with proper living conditions and they live close to the construction sites in camps or in city slums. As the construction workers are mainly migrants, the educational needs of their children are often neglected. They usually live in temporary haven which may or may not be close to public schools. These workers face a number of health issues, legal issues and issues pertaining to their living conditions and working conditions. There is an immediate need to address these issues. Hence, an attempt has been made in this research work to study the living conditions and working conditions of urban construction workers and to analyze the problems faced by them in the study area.*

**KEYWORDS:** *Construction Workers, Working Condition, Living Condition, Unorganized Sector*

### **INTRODUCTION**

The construction industry is an emerging industry of the world that forms 7.5 percent of the world labor force. It is the largest economic activity in India after agriculture. It is also a labor-intensive industry consisting of 44 percent of all the urban unorganized workers. This workforce comprises of 55percent of unskilled labor, 27 percent of skilled labor, and the remaining technical and support staff. The workers of the construction sector are exposed to multiple health issues. The nature of work involved in construction calls for a large volume physical dexterity and the workers in the sector are in adverse conditions like long duration of work, poor living conditions, lack of basic amenities, unguaranteed job security, separation from family and a squat pay. The construction sector in India is an upcoming one and in the last fifty years, it has witnessed an increase, especially in big cities such as Delhi, Mumbai, Chennai, and Bangalore. Furthermore, the growth of employment in the sector has been significant; it is considered one of the most key industries for national development in Asia. A focal point on the construction sector brings into the mainstream certain key issues related to work conditions, recruitment patterns, migration, and cycles of exploitation.

Construction workers form the chunk of the unorganized labor in Tamilnadu as well. There is a lakh engaged in the construction industry in Tamil Nadu. A considerable number of such construction workers are women and children. The anguish of these workers is certainly a matter of apprehension. This growth of the construction industry had made it

the single largest employer of emigrant labor or the poorest of the underprivileged. All most all the construction industry is in need of a vast labor force comprising of uneducated villagers from adjoining districts and even remote states. The laborers and their families working in the site are not provided with space with proper living conditions and they live close to the construction sites in camps or in city slums. As the construction workers are mainly migrants, the educational needs of their children are often neglected. They face innumerable problems in the workplace, which was highlighted by several research studies (Yadav,2015: Annette,2017: Alwar, 2017) like unsafe working conditions, health hazards in the workplace, lack of social security, poor standard of living etc.,

## STATEMENT OF THE PROBLEM

The construction workers across the country face several issues, including health hazards. Despite several legislative measures, innumerable problems are still persisting. One of the root causes of the problem to be addressed is the working conditions under which the workers are involved. Hence, a study which is investigated by the researcher on the working and living conditions of the urban construction workers may serve as a remedy to this pertinent issue.

## OBJECTIVES OF THE STUDY

Based on the research gap in the area of research chosen, the following objectives were proposed by the researcher. The objectives of the study were

- To study the living conditions and working conditions of urban construction workers
- To analyze the problems faced by the construction workers in the study area

## HYPOTHESIS OF THE STUDY

The number of hours of work, age, working conditions and nature of work of the construction workers are independent of the health problems faced by them.

## RESEARCH METHODOLOGY

The present study was conducted among the construction workers of Tiruchirappalli town. Data were collected using a well-structured interview schedule from 100 construction workers from different zones of Tiruchirappalli city corporation; KoAbishkburam, Ariyamagalam, Golden rock and Srirangam by means of the purposive sampling method. Data were collected on income, working hours, nature of work, a standard of living, saving pattern, family size, education, government schemes, and other related variables. Secondary data were collected from the handbook of construction statistics, journals, books and from the official websites of the Government of India and Tamil Nadu.

### Nature of Work of Construction Workers

Employment in the construction industry is seasonal in nature with a clear division of labor involving both skilled and unskilled labor force. But, the unskilled nature of work is more prone to exploitation in the work place.

The study reveals that nearly one-third of the respondents belong to the category of helpers and who also happen to be female workers. It also shows that all the female workers are engaged in the unskilled work of construction industry.

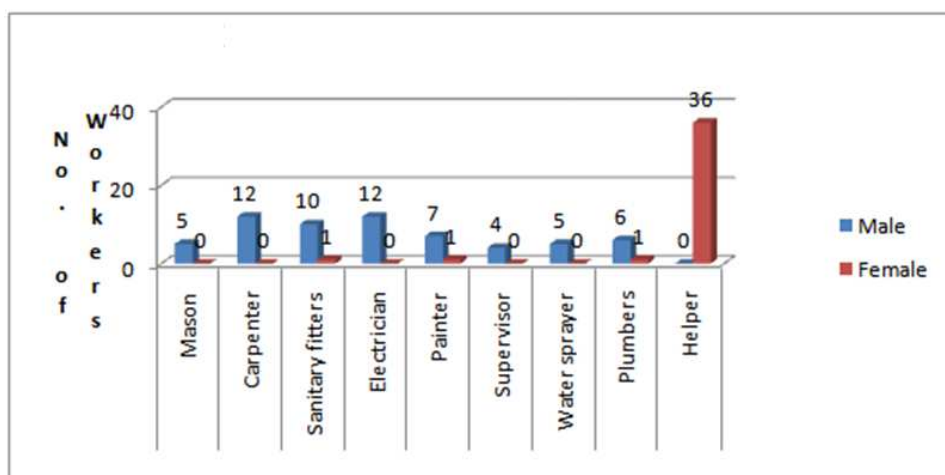


Figure 1: Distribution of Workers across Different Occupations

### Educational Status of the Respondents

Education empowers workers with skill enhancement and bargaining power. It enhances the learning capacity of the workers and enables them to climb the ladder of success.

Table 1: Cross-Tabulation between Education and Nature of Work

Level of Education	Nature of work									Total
	Mason	Carpenter	Sanitary Fitters	Electrician	Painter	Supervisor	Water Sprayer	Plumbers	Helper	
Illiterate	0	2	0	0	0	0	0	0	2	4
Primary Education	0	4	1	4	3	0	2	2	13	29
Secondary Education	5	4	10	6	5	2	3	5	21	61
Higher Secondary Education	0	2	0	0	0	2	0	0	0	4
Higher Education	0	0	0	2	0	0	0	0	0	2
<b>Total</b>	<b>5</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>8</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>34</b>	<b>100</b>

A cross tabulation was done between education and the nature of work as shown in table 1. It shows that workers with primary and secondary education are engaged more in unskilled work like helpers, whereas those with more education are engaged in skilled work like electrician, supervisor etc. A chi-square test of independence was carried out between the level of education of workers and the nature of work they are involved in. A significant interaction was found [ $\chi^2(24, N=100) = 53.1, p < 0.01$ ]. Workers with less education are more likely to get into unskilled work.

### Living Conditions of the Workers:

One of the indicators of the economic status of the workers is their living conditions indicating the type of house in which they are living and the household items which they possess at home and the facilities with which they are leading their life.

**Table 2: Type of House**

House Type	Number of Respondents	Percentage
Pucca	50	50
Kutchha	50	50
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 2 indicates that half of them are residing in Pucca house and the other half are residing at Kutchha houses.

**Table 3: House Hold Item Possessed by the Respondents**

Household Item	Number of Respondents and Percentage		
	Yes	No	Total
T.V	92	8	100
Radio	8	92	100
Computer	7	93	100
Fan	94	6	100
Bike	29	71	100
Mobile	96	4	100

**Source: Primary Data**

It is evident from Table 3 that more than 90 percent of the respondents have reported to have the items of T.V, Fan and Mobile phones, with only a very little percentage of 7 to 8 said having Radio and computer respectively. But none of the workers were reported to possess household items like washing machine, AC, Refrigerators etc.,

**Table 4: Housing Facility of the Sample Respondents**

Facility	Number of Respondents	Percentage
<b>Cooking</b>		
Wood	2	2
Kerosene	4	4
Gas	94	94
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Lighting</b>		
Electricity	95	95
Kerosene	4	4
Gas	1	1
<b>Total</b>	<b>100</b>	<b>100</b>
<b>Toilet</b>		
Public toilet	26	26
Private toilet	72	72
Open defecation	2	2
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

It is apparent from Table 4 that more than three-fourths of the families have facilities like cooking gas connection, electricity for housing and private toilet facility. A minor percentage of 2 to 4 are still using open defecation system, relying on kerosene for lighting and use firewood and kerosene for cooking. Thanks to the freebies of the government of Tamil Nadu.

**Table 5: Work Experience of the Respondents**

Work Experience(in years)	Number of Respondents	Percentage
1-10	45	45
11-20	46	46
21-40	9	9
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 5 reveals that more than half of the respondents have experience of working for more than 10 years. The other half has less than 10 years of experience, which can be attributed to their younger age. A chi-square test of independence was carried out between the years of experience of workers and the income earned by them per annum. A significant association was found [ $\chi^2(14, N=100) = 24.8$ ,  $p < 0.05$ ]. Workers with more experience are more likely to earn better.

**Table 6: Hours of Work of the Workers**

Number of Hours	Number of Respondents	Percentage
6	4	4
7	81	81
8	15	15
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 6 shows that the time spent in construction work by the workers every day ranges from 6 to 8 hours. But the majority of the respondents (81 percent) work for 7 hours a day. A chi-square test of independence was carried out between the hours of work and the health issue of back pain faced by the workers. A significant association was found [ $\chi^2(2, N=100) = 33.2$ ,  $p < 0.01$ ]. Workers with more hours of work are more likely to get back pain. Similarly, a chi-square test of independence was carried out between the hours of work and the health issue of joint pain faced by the workers. A significant association was found [ $\chi^2(2, N=100) = 9.6$ ,  $p < 0.01$ ]. Workers with more hours of work are more likely to get joint pain.

**Table 7: Cross Tab between Hours of Work and Health Issues Faced by the Workers**

Hours of Work Per Day	Joint Pain			Back Pain		
	Yes	No	Total	Yes	No	Total
6	3	1	4	3	1	4
7	80	1	81	80	1	81
8	13	2	15	8	7	15
<b>Total</b>	<b>96</b>	<b>4</b>	<b>100</b>	<b>91</b>	<b>9</b>	<b>100</b>

**Source: Computed Values**

A cross tabulation was done between the hours of work of the respondents and the major health ailments like joint pain and back pain faced by them as shown in table 7. A noteworthy association was found between the two variables with more hours of work per day is more likely to be associated with more health issues.

**Table 8: Number of Days of Work in a Month**

No of Days of Work	Number of Respondents	Percentage
15-20	69	2
21-25	28	1
26-28	3	1
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 8 tells that only a third of the respondents are able to find a job for more than 21 days a month and the rest are able to get a job for less than 20 days per month.

**Table 9: Distance from Home to Working Place of the Respondents**

Distance(in K.M)	Number of Respondents	Percentage
1-2	42	16
3-4	22	8
5-6	30	16
7-15	6	3
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 9 shows that nearly one-third of the workers travel more than 5 kilometers a days to reach their workplace and nearly half of the respondents travel around 1 to 2 kilometers to reach the workplace. It reveals the hardship faced by the construction workers in the study area.

**Table 10: Mode of Transport of the Respondents**

Mode of Transport	Number of Respondents	Percentage
By Walk	2	2.0
Cycle	2	2.0
Bus	69	69.0
Van	23	23.0
Two -wheeler	4	4.0
<b>Total</b>	<b>100</b>	<b>100.0</b>

**Source: Primary Data**

Since the majority of the respondents have to travel more than 2 kilometers a day to reach their workplace, nearly 90 percent of them adopt bus or van transportation to reach the work destination as shown in table 10.

**Table 11: Mode of Payment for Overtime Work of the Respondents**

Mode of Payment for Overtime Work	Number of Respondents	Percentage
Cash	66	66
Food	32	32
Nothing	2	2
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

It is clear from table 11 that majority of workers (two-thirds) are paid in cash for their overtime work and one-third of the workers are paid in kinds like food or other kinds for the same.

**Table 12: Amenities in the Workplace**

Amenities	Number of Respondents	Percentage
Drinking water	7	7
Canteen	1	1
First aid	39	39
All the above	53	53
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

Table 12 shows that nearly half of the respondents have access to amenities like drinking water, canteen and first aid in the workplace. But the other half has no access to canteen and drinking water and a third of them have access to first aid alone.

**Table 13: Issues in Payment of Wages**

Issues	Number Responded Yes	Percentage
Irregularity of wage payment	8	8
Wage discrimination	51	51
Gender discrimination	67	67
Leisure availed for less than an hour	30	30

**Source: Primary Data**

Construction workers are in the category of the informal sector without any regulatory mechanism on wage payment, hours of work, hours of leisure and have no collective bargaining. Table 13 depicts that the respondents in the study area reported on problems of irregularity of wage payment (8 percent), Wage discrimination (51 percent), gender discrimination (67 percent) and less than an hour of leisure (30 percent).

**Table 14: Number of Months Unemployed during the Last One Year**

Time Unemployed(In Months)	Number of Respondents	Percentage
0	7	7
1	6	6
2	37	37
3	26	26
4	12	12
5	2	2
6	10	10
<b>Total</b>	<b>100</b>	<b>100</b>

**Source: Primary Data**

The seasonal nature of construction work made the workers remain unemployed for some time in a year. It is evident from table 14 that nearly two-third of the respondents reported that they remain unemployed for 2 months in the last year. Nearly one-fourth remained unemployed for 3 months, one-fifth for 4 to 6 months and nearly 7 percent reported that they were engaged during the whole year.

**Table 15: Time Spent on Sleeping**

Hours Sleeping	Number of Respondents	Percentage
6	2	2
7	31	31
8	61	61
9	6	6
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Primary Data

Table 15 reveals that a vast majority of 91 percent of the respondents sleep adequately for 7 to 8 hours a day. Despite this, many have reported health issues.

**Table 16: Health Problems Faced by Construction Workers**

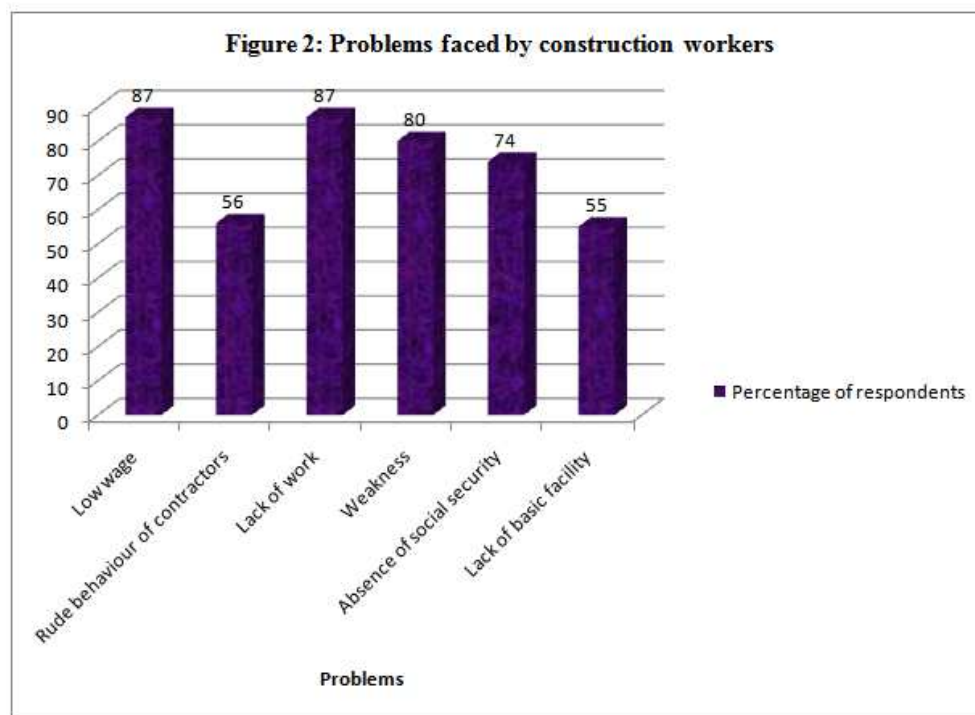
Variable	Number of Respondents	Percentage
<b>Dental</b>	59	59
<b>Backaches</b>	91	91
<b>Jointpain</b>	96	96
<b>Respiration</b>	26	26
<b>Asthma</b>	8	8
<b>Skindiseases</b>	35	35
<b>Other ailments</b>	3	3

Source: Primary Data

The nature of work involved in the construction industry has associated with it lot of health issues. The workers in the study area are not an exception to these physical ailments. Table 16 vividly tells the fact that back pain and joint pain were reported by a vast majority of more than 90 percent of respondents. A sizeable number of more than a half reported about the dental problem. The variables of age, hours of work, working conditions and nature of work were found to have a significant bearing on the physical ailments of the respondents. Hours of work and backache [ $\chi^2(2, N=100) = 33.19$ ,  $p < 0.01$ ], Hours of work and joint pain [ $\chi^2(2, N=100) = 9.6$ ,  $p < 0.01$ ], Hours of work and asthma [ $\chi^2(2, N=100) = 20.1$ ,  $p < 0.01$ ], Hours of work and skin disease [ $\chi^2(2, N=100) = 6.42$ ,  $p < 0.05$ ], Working conditions and backache [ $\chi^2(3, N=100) = 15.35$ ,  $p < 0.01$ ], Working conditions and joint pain [ $\chi^2(3, N=100) = 27.6$ ,  $p < 0.01$ ], Working conditions and asthma [ $\chi^2(3, N=100) = 19.06$ ,  $p < 0.01$ ], Age and joint pain [ $\chi^2(3, N=100) = 8.8$ ,  $p < 0.05$ ], Nature of work and backache [ $\chi^2(8, N=100) = 15.8$ ,  $p < 0.05$ ]

The study shows that 50 percent to 90 percent of the respondents face problems like payment of low wages, rude behavior of contractors, lack of work, physical weakness of workers, an absence of social security measures and lack of basic amenities in the workplace, which is highlighted in figure 2.





**Figure 2: Problems Faced by Construction Workers**

Nearly 50 percent to 90 percent of the respondents face problems like payment of low wages, rude behavior of contractors, lack of work, physical weakness of workers, an absence of social security measures and lack of basic amenities in the workplace.

## SUGGESTIONS

The findings of the present study will pave way for policy suggestions. They are:

- Since construction work is seasonal in nature, the workers face the problem of uncertainty of job and hence a minimum wage must be fixed below which they should not work.
- The nature of the job involved in the construction industry is a risky character. Most of the workers are not getting compensation for the accidental loss occurred at work-place.
- Since construction workers are exposed to health issues, they must be protected by free medical insurance cover.

## CONCLUSIONS

The nature of work involved in construction industry has associated with it a lot of issues like unorganized nature of work, uncertain work, occupational diseases/hazards, unemployment, unregulated working hours, lack of insurance cover and other social security covers. Extension of social security measures to construction workers by way legislation and strict implementation of laws may solve these issues. The workers also must be educated about the existing welfare schemes available for their welfare, safety, and security

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